

****ATTENTION****

This document is provided for historical purposes only.

Documents contained in the Washington Department of Fish and Wildlife Document & Publication Archive may contain dated and/or incorrect information. The WDFW Document & Publication Archive is provided as a service to those interested in the history of fish and wildlife management in Washington State.

Who to call for permits

In an emergency:

Departments of Fisheries & Wildlife
hotline, (206) 753-6618

Local contacts:

Planning Department

Building Department

Public Works Department

State contacts:

Fisheries Department

(206) 902-2534

Wildlife Department

(206) 753-5897

Ecology Department

(206) 459-6000

Natural Resources

(206) 902-1100, Aquatic Lands

(206) 902-1400, Forest Practices

Federal contact:

Army Corps of Engineers

(206) 754-3495

This publication was prepared by the Washington State Departments of Ecology, Fisheries, Wildlife, and Natural Resources. For more copies call Ecology's Publications Office at (206) 438-7472.

A guide to permits for working in or near Washington streams



WASHINGTON STATE DEPARTMENT OF
Natural Resources

Department of Ecology Publication # BR 92-18

So you want to work in or near Washington streams?

Any and all development activities, including flood damage restoration or prevention work, construction, land use or any other types of projects undertaken in, on or near any lake, river, stream, marsh, bog, slough, wetland, or other waterbody, may require one or more of the following permits. In order to avoid unnecessary delays, added costs, or other inconveniences, we strongly recommend you contact the permitting agencies listed below early in the planning stages of your project.

Note: It is the responsibility of the landowner, the landowner's agent, and/or contractor, to seek out all required permits to avoid violation of local, state and federal laws.

Local permits

Shoreline permit (RCW 90.58)

Land use, work, construction, development, or other activities and projects within the 100-year floodplain or within 200 feet of the shoreline of certain lakes, rivers, streams, marshes, bogs, swamps, wetlands, floodways, and river deltas, may require a Shorelines Substantial Development Permit. *Contact: Your local planning department*

Floodplain development permit (CFR 44, Part 60)

A floodplain development permit is required for all activity within the 100-year floodplain, including buildings, mining, filling, dredging, grading, paving, excavations, drilling operations, and storage of equipment or materials. *Contact: Your local Planning, Building or Public Works Department*

State permits

Hydraulic permit

(RCW 75.20.100, .103, .106)

Work, construction, development or other activities that will use, divert, obstruct or change the natural flow or bed of any fresh or salt water of the state may require a written Hydraulic Project Approval. Verbal permission will be granted in emergencies. *Contact: Department of Fisheries, (206) 902-2534 or Wildlife, (206) 753-5897. After working hours, call Joint Wildlife/Fisheries hotline, (206) 753-6618*

Water quality standard modification and/or certification (RCW 90.48)

Work, construction, or other activities, including chemical applications either in or around any waters, may need a Temporary Modification of Water Quality and/or a Water Quality Certification. *Contact: Ecology, (206) 459-6000*

SEPA Review (RCW 43.21C)

Some projects near waterbodies will have to go through SEPA. SEPA stands for State Environmental Policy Act, and is a process (rather than a permit) geared to mesh with already existing permits, approvals, and/or licenses. SEPA provides a way to analyze the environmental impacts of any proposed project. Whether your project must go through the SIIPA process will be determined by the scope of your project and/or through your local or state permitting jurisdiction. *Contact: Ecology's Environmental Review Section, (206) 459-6025 or 459-6020.*

Aquatic lands lease and/or authorization (RCW 79.90)

Washington State owns the beds and shorelands of navigable waterbodies, including certain lakes, rivers, and streams. Any proposed uses or actions involving construction, filling, dredging, drilling, mining, road construction, utility installation, or other activities within the beds or shorelines of certain waters may need either an Aquatic Lands Lease and/or Authorization. *Contact: Washington Department of Natural Resources Division of Aquatic Lands, (206) 902-1100*

Forest practice approval (RCW 76.09)

Forest activities relating to growing, harvesting or processing timber, road construction and maintenance, brush clearing, slash disposal, as well as forest chemical applications undertaken around waterbodies or other areas, may need a Forest Practice Approval. *Contact: Washington Department of Natural Resources, (206) 902-1400*

Federal permit

Corps permit (Section 10 and 404)

Any placement of dredged or fill material in the waters and/or wetlands including isolated wetlands, as well as the performance of any work in navigable waters of the United States requires a Corps Permit. *Contact: US Army Corps of Engineers, (206) 764-3495.*

Stream Hydraulics

The basic components of a stream system are the stream channel and its flood plain. Flood plains are areas frequently covered by water when streams overflow their banks. Stream channels erode and meander across the flood plain as they flow downstream, with channel bends reducing the amount of energy and velocity of flowing water as they erode. The degree of meander can vary from almost straight with little erosion to braided with numerous mid-channel bars and split channels.

Stream channels naturally change from year to year. Changes in flow and energy are compensated by adjustments in the bedload (sediment and gravel on the streambed). Most channels develop a balance between these forces. In an undisturbed, natural stream, the bedload becomes distributed between source areas and deposit areas. A typical stream degrades (erodes) in the headwaters or upper elevation reaches due to its steeper slope and higher energy, aggrades (deposits) near its mouth due to reduced slope and excess bedload, and meanders through transition areas. During floods, a stream may both degrade and aggrade within the same stream section. Aggradation and/or

degradation may be influenced by local conditions such as large woody debris, bridge crossings, dikes, and channelized stream sections.

Protecting aquatic environments

Although flood control projects can adversely effect aquatic habitat, careful consideration of habitat features and values during project design and construction can minimize these effects. Where adverse effects are unavoidable, mitigation may be required.

The existence of fish in a given stream depends on the quality of the habitat. Given adequate cool, clean water, food, hiding and resting cover, and bed and bank stability, fish will spawn and rear successfully.

The shape of a stream bed is very important in determining whether the area can support fish during their various life stages. Productive streams include a combination of pools (deep, slow moving) and riffles (shallow, rapid moving). Pools are important for resting and feeding, while riffles are important for spawning and egg incubation, and for insect production, the primary food source for fish. Pools are generally composed of silt and small gravel bottoms while riffles are composed of gravel, cobble, and boulders.

Temperature and sedimentation are the major factors affecting fish survival. Salmon and trout are intolerant of changes in these factors, having evolved in cool, clean-water streams. Spawning riffles contaminated with fine sediment can suffocate incubating salmon and trout eggs.

Hiding and rearing cover comes in many forms, such as water depth, water turbulence, large rocks and boulders, ~~overhanging bank vegetation, undercut~~ banks, and instream large woody debris. Removal or disturbance of these sheltered areas can seriously disrupt the capacity of a stream to produce fish.

It is vitally important that natural stream configurations be maintained wherever possible. Channelization, straightening, or altering a stream channel so the natural meander is removed generally results in bed scouring, increased bedload movement and upstream and downstream bank erosion.

Which permits do you need?

The chart below is intended to help you find which permits are needed for your project.

Remember: a single project will probably require permits from different agencies. For example, a bank stabilization project may need an HPA, Water Quality Certification, shoreline permit, and local floodplain development permit.

- ☐ Is the project in the water?
 - ✓ Hydraulic permit
 - ✓ Aquatic lands authorization

- ☐ Is it in the 100-year floodplain?
 - ✓ Floodplain development permit

- ☐ Does the project cost over \$2,500?
 - ✓ Shoreline permit

- ☐ Will trees be removed?
 - ✓ Forest practice approval

- ☐ Will it effect water quality?
 - ✓ Water quality certification

- ☐ Will wetlands be involved?
 - ✓ Army Corps permit